AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method comprising:

establishing multiple sessions with a database system, each session associated with at least one transaction;

identifying transactions that operate on the same set of one or more tuples;

re-allocating transactions between or among the sessions such that the identified transactions that operate on the same set of one or more tuples are allocated to one of the sessions;

identifying statements in a particular one of the transactions that specify modification operations that are commutative and associative;

combining the identified statements into one statement; and

submitting the one statement to the database system.

2. (Original) The method of claim 1, wherein identifying the statements comprises identifying Structured Query Language (SQL) statements.

3. (Original) The method of claim 1, wherein combining the identified statements is performed prior to submitting the one statement to the database system.

4. (Previously Presented) The method of claim 1, further comprising grouping plural ones of the transactions into the particular transaction.

5. (Previously Presented) The method of claim 4, wherein establishing the multiple sessions, identify the transactions, re-allocating the transactions, identifying the statements, combining the identified statements, submitting the one

statement, and grouping the plural transactions are performed by a module separate from a database engine of the database system.

6. (Previously Presented) The method of claim 1, wherein establishing the multiple sessions, identifying the transactions, re-allocating the transactions, identifying the statements, combining the identified statements, and submitting the one statement are performed by a module separate from a database engine of the database system.

7. (Previously Presented) The method of claim 6, wherein identifying the statements, combining the identified statements, and submitting the one statement are performed by the module without first accessing data in relational tables.

8. (Previously Presented) The method of claim 1, further comprising switching an order of statements in the particular transaction to place the identified statements adjacent to each other.

9. (Original) The method of claim 8, further comprising determining whether data dependency exists between or among the identified statements prior to switching the order of the identified statements.

10. (Original) The method of claim 1, wherein identifying the statements comprises identifying statements <t, b_1> through <t, b_m>, m being greater than 1, where t represents a set of one or more tuples, and b_1 through bm represent respective modification operations on the set of one or more tuples, and

wherein combining the identified statements comprises combining the identified statements into statement <t, c>, where c represents an aggregation of b_1 through b_m.

11. (Original) The method of claim 10, wherein combining the identified statements comprises combining the identified statements into statement <t, c>, where c represents an addition b_1 through b_m.

12. (Original) The method of claim 10, wherein combining the identified statements comprises combining the identified statements into statement <t, c>, where c represents a multiplication of b_1 through b_m.

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Previously Presented) A system comprising:

an interface to receive first queries from a client system;

one or more processors; and

a software utility executable on the one or more processors to:

establish plural sessions with a database system, each session associated with at least one transaction;

identify transactions that operate on the same set of one or more tuples;

re-allocate transactions between or among the sessions such that the identified transactions that operate on the same set of one or more tuples is allocated to one of the sessions;

identify first queries of a particular one of the transactions that specify commutative and associative operations, and

group the identified first queries into a second query.

23. (Original) The system of claim 22, wherein the statements comprises Structured Query Language (SQL) statements.

24. (Previously Presented) The system of claim 22, wherein the controller is adapted to send the second query to a database engine of the database system.

25. (Previously Presented) The system of claim 24, wherein the controller is adapted to group the identified first queries prior to submitting the second query to the database engine.

26. (Previously Presented) The system of claim 22, wherein the software utility is executable to group plural transactions into the particular transaction.

27. (Cancelled)

28. (Original) The system of claim 22, wherein the identified first queries comprise statements <t, b_1> through <t, b_m>, m being greater than 1, where t represents a set of one or more tuples, and b_1 through bm represent respective modification operations on the set of one or more tuples, and

wherein the second query comprises statement <t, c>, where c represents an aggregation of b_1 through b_m.

29. (Original) The system of claim 28, wherein c represents an addition of b_1 through b_m.

30. (Original) The system of claim 28, wherein c represents a multiplication of b_1 through b_m.